

## Memorandum on Diversity in the Scientific and Technical Work Force September 10, 1998

*Memorandum for the National Science and Technology Council*

*Subject:* Achieving Greater Diversity Throughout the U.S. Scientific and Technical Work Force

The world admires the American higher education system for its excellence in advanced training in science and engineering. Maintaining leadership across the frontiers of science and producing the finest scientists and engineers for the 21st century are principal goals of my Administration's science and technology policies. The work of individuals and organizations to inspire and mentor young people and offer role models is crucial to achieving these goals. To recognize this, I established the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring in 1996. This annual award honors individuals and organizations for outstanding mentoring efforts that have encouraged significant numbers of individuals from groups under-represented in science, mathematics, and engineering to succeed in these fields.

As we work to develop the finest scientists and engineers for the 21st century, our human resources policies must address the composition of our science and engineering work force. Achieving diversity throughout the ranks of the scientific and technical work force presents a formidable challenge. The number of women, minorities, and persons with disabilities who have careers in science and engineering remains low. In every year of this decade, there have been far too few minorities awarded degrees in science or engineering, and the trend in minority admissions and degree awards is not encouraging. We need to draw upon the Nation's full talent pool. We cannot afford to overlook anyone.

Today, the science and engineering work force does not reflect the changing face of America. By 2010, approximately half of America's school-age population will be from minority groups. Minority participation in science and engineering careers should keep pace with this growing diversity. Expanding such participation will require drawing on and developing talent at all stages of educational preparation leading to advanced study. For example, only a small

fraction, perhaps one-eighth, of all high school graduates have the mathematics and science preparation that would permit advanced study in a technical field; for under-represented minorities, that fraction is only half as much.

The Federal Government, working in partnership with the private sector and State governments, can be an effective agent of change; we can promote fuller participation of women, minorities, and people with disabilities in scientific and technical careers. With your help, my Administration has promoted quality education in the crucial early years by improving the quality of our schools and teachers, expanding access to the Internet and other technology-based learning tools, and basing all our efforts on rigorous standards through Goals 2000. We have expanded access to higher education by making it more affordable.

Existing Federal programs provide the means to achieve, but what are also needed in many cases are the mentors or role models that can help point the way to success. My High Hopes initiative will provide mentoring for middle and high school students to encourage larger numbers of low-income young people to enroll in colleges and universities. However, we must continue to assist under-represented minorities as they make their way through the myriad options available to them once they enter into our Nation's system of higher education. This is especially true for important technical career paths.

Therefore, I direct the National Science and Technology Council (NSTC) to develop recommendations within 180 days on how to achieve greater diversity throughout our scientific and technical work force. The NSTC recommendations will detail ways for the Federal Government to bolster mentoring in science and technology fields and to work with the private sector and academia to strengthen mentoring in higher education.

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